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|-------------------------------|------------------------------|------------------|
| <b>Notice of Allowability</b> | Application No.              | Applicant(s)     |
|                               | 10/695,169                   | JUNG, YOU-YOUNG  |
|                               | Examiner<br>Victor J. Taylor | Art Unit<br>2863 |

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address--

All claims being allowable, PROSECUTION ON THE MERITS IS (OR REMAINS) CLOSED in this application. If not included herewith (or previously mailed), a Notice of Allowance (PTOL-85) or other appropriate communication will be mailed in due course. **THIS NOTICE OF ALLOWABILITY IS NOT A GRANT OF PATENT RIGHTS.** This application is subject to withdrawal from issue at the initiative of the Office or upon petition by the applicant. See 37 CFR 1.313 and MPEP 1308.

1.  This communication is responsive to 8/20/2007.
2.  The allowed claim(s) is/are 2-6, 8-12 and 14-17.
3.  Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
  - a)  All
  - b)  Some\*
  - c)  None
 of the:
  1.  Certified copies of the priority documents have been received.
  2.  Certified copies of the priority documents have been received in Application No. \_\_\_\_\_.
  3.  Copies of the certified copies of the priority documents have been received in this national stage application from the International Bureau (PCT Rule 17.2(a)).

\* Certified copies not received: \_\_\_\_\_.

Applicant has THREE MONTHS FROM THE "MAILING DATE" of this communication to file a reply complying with the requirements noted below. Failure to timely comply will result in ABANDONMENT of this application.  
**THIS THREE-MONTH PERIOD IS NOT EXTENDABLE.**

4.  A SUBSTITUTE OATH OR DECLARATION must be submitted. Note the attached EXAMINER'S AMENDMENT or NOTICE OF INFORMAL PATENT APPLICATION (PTO-152) which gives reason(s) why the oath or declaration is deficient.
5.  CORRECTED DRAWINGS ( as "replacement sheets") must be submitted.
  - (a)  including changes required by the Notice of Draftsperson's Patent Drawing Review ( PTO-948) attached
    - 1)  hereto or 2)  to Paper No./Mail Date \_\_\_\_\_.
  - (b)  including changes required by the attached Examiner's Amendment / Comment or in the Office action of Paper No./Mail Date \_\_\_\_\_.

Identifying indicia such as the application number (see 37 CFR 1.84(c)) should be written on the drawings in the front (not the back) of each sheet. Replacement sheet(s) should be labeled as such in the header according to 37 CFR 1.121(d).
6.  DEPOSIT OF and/or INFORMATION about the deposit of BIOLOGICAL MATERIAL must be submitted. Note the attached Examiner's comment regarding REQUIREMENT FOR THE DEPOSIT OF BIOLOGICAL MATERIAL.

#### Attachment(s)

1.  Notice of References Cited (PTO-892)
2.  Notice of Draftsperson's Patent Drawing Review (PTO-948)
3.  Information Disclosure Statements (PTO/SB/08),  
Paper No./Mail Date \_\_\_\_\_
4.  Examiner's Comment Regarding Requirement for Deposit  
of Biological Material
5.  Notice of Informal Patent Application
6.  Interview Summary (PTO-413),  
Paper No./Mail Date \_\_\_\_\_
7.  Examiner's Amendment/Comment
8.  Examiner's Statement of Reasons for Allowance
9.  Other \_\_\_\_\_

## **DETAILED ACTION**

### ***Claims***

1. Claims 2-6 and 8-12 and 14-17 are pending in the instant application. Claims 1 and 7 and 13 were cancelled, therefore claims 2-6 and 8-12 and 14-17 are presented for examination.

### ***Priority***

2. Applicant's claim for the benefit of a prior-filed application under 35 U.S.C. 119(e) or under 35 U.S.C. 120, 121, or 365(c) is acknowledged.

### ***Drawings***

3. The drawings were received on 10/29/2003. These drawings are approved.

### ***Information Disclosure Statement***

4. The information disclosure statements (IDS) were submitted on 11/20/2003 and on 2/27/2004 and on 11/30/2006 and on 4/09/2007. These submissions are in compliance with the provisions of 37 CFR 1.97. Accordingly, the examiner has considered the information disclosure statements.

### ***Response to Arguments***

5. Applicant's arguments, see the response, filed 8/20/2007, with respect to the amendments to claims 10, 13 and 17 have been fully considered and are persuasive. The 35 USC 101 rejection of 5/16/2007 is moot and has been withdrawn.

6. Applicant's arguments see the response, filed 8/20/2007, with respect to the cancelled claim 13 the amended claims have been fully considered and are persuasive. The 35 USC 102 (b) rejections of 5/16/2007 are moot and have been withdrawn.

***Allowable Subject Matter***

7. Claims 2-6 and 8-12 and 14-17 are allowed.

The following is an examiner's statement of reasons for allowance:

I. Claim group 2-6 were previously indicated as allowed.

Wherein independent claim 4, A motion detection apparatus, recites limitations for "a motion detection unit sequentially being input with a plurality of fields that are temporally successive and detecting motion information values representing presence and absence of a motion for each pixel/block of an input nth field" ... [and] combined with "a motion calculation buffer storing the motion information values for each pixel/block" ... [and] wherein the explicit particular claimed limitation in combination for "a motion calculator correcting the motion information values of the input n+1th field stored in the motion calculation buffer unit, and based on the motion information values of an input n+1th field detected by the motion detection unit, by adding a given first value to a motion information value stored in the motion calculation buffer unit if a corresponding pixel/block has motion" ... [and] combined with "subtracting a given second value from a motion information value stored in the motion calculation buffer unit if a corresponding pixel/block has no motion" is not found in the cited art of record.

It is these limitations expressed in each of these claims and not found, taught, or suggested in the prior art of record, that makes these claims allowable over the prior art.

Claims 2-3 and 5-6 are dependent on the allowed independent claim 4 and are allowed at least for the reasons cited above.

II. Independent claim 10 was previously indicated as allowed and wherein claims 8-12 form claim group II.

Wherein independent claim 10, A motion detection method, recites limitations for "sequentially inputting a plurality of fields that are temporally successive" ...[and] "detecting the motion information values representing the presence and the absence of a motion for each pixel/block of an input nth field" ...[and] combined with the particularly claimed steps for "storing the motion information values for each pixel/block" wherein the steps for "correcting the motion information values of the input n+1th field stored in the motion calculation buffer unit, and based on the motion information values of an input n+1th field, by adding a given first value to a stored motion information value if a corresponding pixel/block has motion, and subtracting a given second value from a stored motion information value if the corresponding pixel/block has no motion" ...[and] "storing the corrected motion information" is not found in the cited art of record.

It is these limitations expressed in each of these claims and not found, taught, or suggested in the prior art of record, that makes these claims allowable over the prior art.

Claims 8-9 and 11-12 are dependent on the allowed independent claim 10 and are allowed at least for the reasons cited above.

III. Independent claim 14 is allowable on the prior cited art of record and wherein claims 14-16 form claim group III.

Wherein independent claim 14, A motion image processor, recites limitations for "a motion detector detecting motion information values representing presence and absence of a motion for each pixel/block of an input n+1th image field" ...[and] with the particular claimed combination with steps for "a motion calculator adjusting according to a formulaic value the detected motion information values of the input n+1th image field based upon motion information values of an input n+1th image field" ...[and] "calculating a mixed value alpha according to the adjusted detected motion information values of the input n+1th image field" ...[and} in combination with "a de-interlacing processor outputting an image frame based upon the mixed value" is not found in the cited art of record.

It is these limitations expressed in each of these claims and not found, taught, or suggested in the prior art of record, that makes these claims allowable over the prior art.

Claims 15-16 are dependent on the allowed independent claim 14 and are allowed at least for the reasons cited above.

IV. Independent claim 17 was previously indicated allowable.

Wherein independent claim 17, A motion image computer processor with at least one medium comprising computer readable code to control at least one processing element in a computer to implement a method for controlling a moving image processor the method using steps for "removing spurious still regions and spurious motion regions during an image field motion detection, that are based upon a limited added to or a limited subtracted from, the set of pixel motion information values of a current image field using only immediately preceding and succeeding image fields to the current image

field wherein the explicit steps for "Removing the spurious still regions and spurious motion regions during an image field motion detection, based upon a limited added to or a limited subtracted from, pixel motion information values of a current image field using only immediately preceding and succeeding image fields to the current image field" is not found in the cited art of record.

It is these limitations expressed in each of these claims and not found, taught, or suggested in the prior art of record, that makes these claims allowable over the prior art.

8. Any comments considered necessary by applicant must be submitted no later than the payment of the issue fee and, to avoid processing delays, should preferably accompany the issue fee. Such submissions should be clearly labeled "Comments on Statement of Reasons for Allowance."

***Conclusion***

9. Any inquiry concerning this communication or earlier communications from the examiner should be directed to Victor J. Taylor whose telephone number is 517-272-2281. The examiner can normally be reached on 8:00 to 5:30 PM.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, John E. Barlow can be reached on 571-272-2863. The fax phone number for the organization where this application or proceeding is assigned is 703-872-9306.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. If you have any questions on access to the Private PAIR system, please contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free).

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8 November 2007

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